

CLAIMS

1. A method of preparing a metal salt of a medium-chain fatty acid, wherein the method comprises solubilizing at least one free fatty acid in solvent, wherein said free fatty acid has a chain length from six to twelve carbons; and reacting said free fatty acid with at least one metal salt, to produce a metal fatty acid salt.
2. The method according to claim 1, wherein the solvent comprises an alcohol.
3. The method according to claim 1 or claim 2, wherein the metal salt comprises a monovalent cation or a divalent cation.
4. The method according to claim 3, wherein the metal salt comprises sodium or potassium.
5. The method according to claim 3, wherein the metal salt comprises calcium or magnesium.
6. The method according to any of claims 1 to 5, wherein the free fatty acid is reacted with at least one metal bicarbonate or at least one metal carbonate.
7. The method according to any of claims 1 to 6, wherein the metal fatty acid salt is sodium or potassium caprylate.
8. The method according to claim 7, wherein the metal fatty acid salt is sodium caprylate.
9. The method according to any of claims 1 to 6, wherein the metal fatty acid salt is sodium or potassium caprate.
10. The method according to claim 9, wherein the metal fatty acid salt is sodium caprate.
11. The method according to any of claims 1 to 10, wherein the concentration of the free fatty acid in solvent is at least 0.5M.
12. The method according to any of claims 1 to 11, further comprising recovering the metal fatty acid salt by precipitation and filtration.
13. A process for quantifying purity of the metal fatty acid salt prepared by the method of any of claims 1 to 12, wherein the process comprises separating product from reactants by High Pressure Liquid Chromatography (HPLC).